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| 09/616,331 | 07/15/2000 | Ryogo Katayama | 21778.04300 | 8444 |

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EXAMINER

CHAU, MINH H

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2854 | 7 |

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PS

Office Action Summary

Application No.

09/616,331

Applicant(s)

KATAYAMA ET AL.

Examiner

Minh H Chau

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-4, 6, 8-12, 14, 16 and 18-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Murai (US # 4,962,421) and Takahashi (JP 09-252413) in view of Ikemoto et al. (US # 5,902,053).

With respect to claims 1, 8, 9, 16 and 19, Murai teaches a printer (100) and a color adjusting method to print an input signal from a color scanner or video signals using printing media, the printer and method comprising an image processing means (see Fig. 6 and col. 6, lines 56-58 of Murai) for storing a plurality of data or gamma data different from each other in a value (see Figs. 7(a), 7(b) and col. 7 of Murai) and converting an image composed of R, G and B input signals based on the input signals to a Y, M and C complementary color image consisting number of frames (see Figs. 6-7 and col. 7), each image being converted using on of the plurality of data or gamma data, means for printing (66) the set of complementary color images as an output from the converting step using the printing media and means for adjusting a printing process of the printer with the data or gamma data used to convert the selected best Y, M, and C complementary color image (see Figs. 6-14 and cols. 2-11 of Murai).

With respect to the recitations of “selecting a desired ... selecting step” (lines 11-12 of claim 9), Murai teaches selecting a desired one of the plurality of images printed on the printing paper and adjusting the colors according to the desired image selected at the selecting step (see cols. 10-11 of Murai).

Murai teaches all the limitations of a printer and method step as recited above, except for the storing a plurality of data or gamma data in “an updatable table”. Takahashi teaches an image processor comprising memory means (402) for storing a gamma data in an amendment or updatable table (see Fig. 3 and paragraph 27-31 of Takahashi).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the device of Murai to include the memory that have updatable table as taught by Takahashi to allow the selection of variety data or gamma data can be amended or updated in the memory so that the best output color image on the printing media can be achieved

The modified device of Murai and Takahashi teach all the limitations of a printer and method step as recited above, except for the recitation of “a printing ink ribbon” (lines 1-2 of both claims 1 and 9) and “a sublimation ink ribbon” (line 2 of both claims 8 and 16).

Ikemoto et al. teach a video printer that having a printing mechanism comprising a thermal head (7), a printing sheet (50) and a sublimation printing ink ribbon (60) (see Fig. 2 and col. 4 of Ikemoto et al.).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the printing mechanism of Murai and Takahashi with the printing mechanism that include the printing ink ribbon as taught by Ikemoto et al. so that a compact printer and less expensive printer can be achieved.

With respect to claims 2 and 10, see Figs. 6-7 and col. 7 of Murai that teach the image processing means has a memory means (80) that stored a plurality of data different from each other in gamma value upon which the color appearance characteristic of the printing medium depends.

With respect to claims 3, 11 and 20, see Figs. 6-14 and cols. 8-11 of Murai that teach the image processing means calculates the plurality of data difference in gamma value from each other with reference to a reference image and stores the addresses of the data in the memory means.

With respect to claims 4, 6, 12 and 14, see Figs. 6-7 and col. 7 of Murai that teach the image processing means has a memory means (80) that stored a plurality of data different from each other in gamma value upon which the color appearance characteristic of the printing medium depends, and a color compensation processor or a complementary color converting (63) for converting the R, G and B images to the Y, M and C complementary color images for the desired number of frames.

With respect to claim 18, see Fig. 7 and cols. 10-11 of Murai that teach means for printing the set of Y, M and C complementary color images in a test pattern consisting number of columns and rows to allow the user easily to obtain or select the best one of the test image pattern. In view of the above teaching, it is clear to one of skill in the art that the outputting of a test pattern in columns and rows meet the broad recitation of "a set of markers"

3. **Claims 5, 7, 13, 15 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Murai, Takahashi and Ikemoto et al. as applied to claims 1, 4, 6, 9, 12 and 14 above, and further in view of Kanamori et al. (US # 5,504,821).

With respect to claims 5, 7, 13, 15 and 21, Murai teach a conversion to the Y, M and C complementary color images for the desired number of frames in a test pattern (see cols. 7-8 and Fig. 7) is effected by an image dividing means. Murai and Ikemoto et al. teach all the limitations, except for “an image dividing means ... sub scanning direction”. Kanamori et al. teach a color converting apparatus including an area processing selecting section or image dividing means (20) for processing pixels of the converting colors in the mains scanning direction by the hardware technique and in the sub-scanning direction by the software technique (see cols. 55-56 of Kanamori et al.).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the device of Murai, Takahashi and Ikemoto et al. to include the an area processing selecting section for converting the colors in the mains scanning direction by the hardware technique and in the sub-scanning direction by the software technique as taught by Kanamori et al. so that the conversion of the colors can be efficiently performed.

4. **Claim 17** is rejected under 35 U.S.C. 103(a) as being unpatentable over Murai, Takahashi and Ikemoto et al. as applied to claim 9 above, and further in view of Tsuboi et al. (US # 4,958,221).

With respect to claim 17, Murai and Ikemoto et al. teach all the limitations, except for “the desired image ... printing paper”. Tsuboi et al. teach a copy machine comprising a test mode for making a color adjustment including a liquid crystal display section or a monitor screen (84) for allowing the selecting of the image that having a desirable color balance (see cols. 7-8 of Tsuboi et al.).

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In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the device of Murai and Ikemoto et al. to include the display screen as taught by Tsuboi et al. for the advantage of allowing the user to select the desirable image easily and accuracy.

5. **Claims 22-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Murai (US # 4,962,421) in view of Tsuboi et al. (US # 4,958,221).

With respect to claim 22, Murai teaches a method comprising storing a plurality of data different from each other in a value on which a color appearance characteristic of a printout depends (see col. 10 of Murai), selecting by a user an important area of a subject image (see col. 11 of Murai), creating a plurality of test images, each test image being created by applying individual one of the data to the important area of the subject image (see col. 10, Fig. 7 of Murai), printing the test image (see col. 11 of Murai), retrieving a user selection of the selected one of the test sample or frame and applying the data used to create the test image corresponding to the selected one of the test sample or frame to a printing operation (see cols. 9-11 of Murai). With respect to the recitation of “outputting a set of markers ... test images” (lines 9-1 of claim 22), Murai teach outputting a test pattern of a plurality of image frames consisting number of columns and rows to allow the user easily to obtain or select the best one of the test image pattern. In view of the above teaching, it is clear to one of skill in the art that the outputting of a test pattern in columns and rows meet the recitation of “a set of marker ... test images” as recited in claim 22.

Murai teaches all the limitation as explained above, except for “a display screen” for displaying the set of the test images. Tsuboi et al. teach a copy machine comprising a test mode

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for making a color adjustment including a liquid crystal display section or a monitor screen (84) for allowing the selecting of the image that having a desirable color balance (see cols. 7-8 of Tsuboi et al.).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the device of Murai and Ikemoto et al. to include the display screen as taught by Tsuboi et al. for the advantage of allowing the user to select the desirable image from a test image pattern without any difficult.

With respect to claims 23 and 24, see col. 10 of Murai that teach memory means for storing or saving the data or gamma data used to create the test image pattern.

6. **Claims 25-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Murai and Tsuboi et al. as applied to claims 22 and 23 above, and in view of Takahashi (JP 09-252413).

With respect to claims 25 and 26, Murai and Tsuboi et al. teach all the limitation as explained above, except for the storing data or gamma data in an “updatable table”. Takahashi teaches an image processor comprising memory means (402) for storing a gamma data in an amendment or updatable table (see Fig. 3 and paragraph 27-31 of Takahashi).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the device of Murai and Tsuboi et al. to include the memory that have updatable table as taught by Takahashi to allow the selection of variety data or gamma data can be amended or updated in the memory so that the best output color image on the printing media can be achieved

Response to Arguments

7. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

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8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh H Chau whose telephone number is (703) 305-0298. The examiner can normally be reached on M - TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H Hirshfeld can be reached on (703) 305-6619. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

MHC
May 19, 2003


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